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ABSTRACT

This paper reports the results of a study conducted to examine the predictive validity of the Nelson-Denny Reading Test (NDRT) in the Virginia Community College System. Subjects were students at Blue Ridge Community College enrolled in English 101, 102, 111, 112, and Psychology 201, 202, or 203 during one academic year. The NDRT (Form A) was administered to students in each of the seven courses who were present on the day of administration. At the conclusion of each academic quarter, final grades were assembled. Means and standard deviations of the NDRT and final grades were computed as were product-moment correlations between NDRT scores and grades. Results indicated that NDRT Raw Vocabulary and Raw Comprehension scores correlated positively with final grades. Correlations were generally higher for Psychology than English. This difference may be accounted for by the fact that Psychology places greater reliance on reading than does English. These results indicated that NDRT scores predict course grades to the extent that course content is gleaned by reading. NDRT Rate scores do not serve as good predictors. Study data is presented in tabular form. (Author/JDS)

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THE NELSON-DENNY READING TEST AS A PREDICTOR OF COMMUNITY COLLEGE ENGLISH AND PSYCHOLOGY GRADES[1]

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Since the Virginia Community College System (VCCS) was founded in 1966, it has espoused an open door admissions policy. In an attempt to prevent the open door from becoming a revolving door, most of the Colleges in the VCCS have used reading tests of one form or another. Foster polled all 23 Colleges of the VCCS about their use of reading tests. These tests are used in the VCCS variously for academic counseling and placement. While most of the VCCS colleges were using the tests as predictors for course achievement, none of them responded with evidence directly supporting the validity of this application. More than 7,700 reading tests were administered in the VCCS in the Academic year 1975-76; of these, more than 7,100 were the Nelson-Denny Reading Test.

Given the volume of use and the absence of local validating data, the present project was designed to examine the predictive validity of the Nelson-Denny Reading Test in the VCCS.

The null hypotheses are as follows:

Course grades are not significantly correlated with

Nelson-Denny Raw

1) Vocabulary Scores
2) Comprehension Scores
3) Reading Rates.

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[1] David Eyler made useful comments on an earlier version of this article. Elvin Fawley provided data processing assistance.

PROCEDURE

Subjects: - The subjects were students at Blue Ridge Community College who were enrolled in English 101, English 102, English 111, English 112, Psychology 201, Psychology 202 or Psychology 203 during the academic year 1976-77 (sic). English 101 and 102 are freshman nontransfer courses; the other are freshman and sophomore college transfer courses. All courses are on a quarter system.

Method: - The Nelson-Denny Reading Test (Form A) was administered to all students in each of the seven courses present on the day of administration. At the conclusion of the Fall, Winter, and Spring quarters, alphabetic grades for those students were assembled.

The .001 level of significance was selected for hypothesis testing.

RESULTS

Table 1 gives the means and standard deviations of the Nelson-Denny Scores and grades. Grades are shown as transformed (A = 4; B = 3; C = 2; D = 1; F = 0) Table 1 includes only students for whom both grade and Nelson-Denny scores were available. Students who withdrew from the course were excluded from the data.

Table 2 contains the product-moment correlations between Nelson-Denny Scores and grades.

Hypotheses 1 and 2 are rejected. (Table 2). The seven vocabulary score correlations and six of the seven comprehension score correlations are direct and significant. ($p < .001$). Hypothesis 3 is not consistently contradicted by the data.

DISCUSSION

The results indicate that Nelson-Denny Raw Vocabulary and Raw Comprehension scores correlated positively with final grades in transfer and nontransfer English and general psychology courses in a Community College setting.

Predictions should be made with caution, however, for two reasons: 1) substantial proportions (49.6 to 90.4 percent) of the variances were not accounted for by the Nelson-Denny, and 2) the subjects in this study had all signed up for the courses prior to testing, so to some extent self-selection may have biased the extent to which the data may be generalized to other groups. However, it is not immediately apparent how to test the hypotheses without compromising students' rights or admitting some possibility of bias due to self-selection. The major bias due to self-selection probably resulted in the exclusion of some students at the very low end of the Nelson-Denny distribution who might be prone to sign up for "developmental" courses rather than these courses. In our judgment such bias is unlikely to have had significant impact on the results and in no way limits the correlations achieved for the specific groups described in this study.

Note that the correlations are generally higher for psychology than for English. This result may be accounted for if the course content is considered. Seemingly, the more reliance the course places on reading, the higher should be the correlation between reading test scores and grades. The English courses considered in this paper are primarily composition courses; reading assignments assume a subordinate role. In contrast, the three-quarter psychology sequence demands comprehension of a major textbook from which most test material is gleaned. Further, the Psychology 201 correlations are higher than the corresponding Psychology 202 and 203 correlations. Successful performance in Psychology 201 is particularly dependent on reading the text; 202 and 203 involve a multimedia approach (tapes, films, discussions) to a far greater extent than does 201. This indicates that the Nelson-Denny predicts course grades to the extent that course content is gleaned by reading.

CONCLUSION

Nelson-Denny Reading Test Raw Vocabulary and Raw Comprehension Scores are predictors of student grades in Community College English and Psychology courses. Nelson-Denny Rate scores do not serve as useful predictors. The power of the Nelson-Denny as a predictor appears dependent on the degree to which reading is dominant in the instant course.

TABLE 1. Means and Standard Deviation of Nelson-Denny Scores and Grades.

COURSE	N	Grades	Vocabulary	Comprehension	Rate
ENGL 101	176	2.6 ± 1.0	30.8 ± 11.9	38.4 ± 12.2	236.4 ± 76.2
ENGL 102	128	2.8 ± 1.1	31.6 ± 11.6	39.5 ± 11.8	241.6 ± 73.3
ENGL 111	177	2.6 ± 1.0	33.5 ± 11.4	40.1 ± 11.0	226.0 ± 79.7
ENGL 112	136	2.7 ± 1.0	33.7 ± 11.8	40.6 ± 11.0	224.4 ± 77.2
PSYC 201	61	2.4 ± 1.3	35.4 ± 12.2	42.6 ± 11.8	276.2 ± 75.7
PSYC 202	69	2.6 ± 1.3	36.3 ± 12.4	43.3 ± 11.8	280.5 ± 74.3
PSYC 203	69	2.8 ± 1.1	36.5 ± 11.9	43.7 ± 10.7	296.4 ± 92.5

TABLE 2. Correlations between grades and vocabulary, comprehension and rate scores.

COURSE	N	Vocabulary	Comprehension	Rate
ENGL 101	176	.31*	.34*	.22
ENGL 102	128	.31*	.26	.25
ENGL 111	177	.43*	.27*	.06
ENGL 112	136	.38*	.36*	-.02
PSYC 201	61	.74*	.61*	.48*
PSYC 202	69	.51*	.47*	.30
PSYC 203	69	.45*	.46*	.04

*$p < .001$

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